

aqueous carrier, a gas or gaseous precursor and vesicles comprising lipids, proteins or polymers to the patient, and (iii) applying ultrasonic energy to the thrombus in an amount sufficient to produce cavitation of said vesicles, wherein said vesicle composition is administered to said patient at a rate which comprises continuous infusion, and said ultrasonic energy is applied via an intravascular or endoluminal ultrasound catheter.

REMARKS

Reconsideration of the present application in view of the above amendments and following remarks is requested respectfully.

Claims 63 to 67 and 75 to 115 are presented. Claim 63 has been amended. No claims have been added or canceled.

Claim 63 has been amended to recite that the application of ultrasonic energy in the methods of the present invention is performed via an intravascular or endoluminal catheter. The use of intravascular or endoluminal catheters for the application of ultrasound is supported in the specification, for example, at page 69, lines 16 to 17.

Applicant notes that, in connection with Applicant's response to the restriction requirement, Claims 88 to 93 and 98 to 107 have been withdrawn from further consideration as being directed to non-elected species. It is respectfully noted that, as pointed out expressly in the Reply dated May 11, 2000, Applicant's election of species was intended to assist the Examiner in conducting a search and examination of the claimed subject matter, and was not intended to be construed as limiting the scope of Applicant's claims. Applicant respectfully requests that, if the elected subject matter is found to be allowable over the prior art, the search and examination be

expanded to cover other species, until it includes the full scope of the generic claims included in the elected group. *See* MPEP 809.02(c).

Response to Rejections

The pending claims have been rejected under 35 U.S.C. § 102(b) over Porter, et al., (Am Heart J. 1996 Nov; 132(5):964-968(Abstract)) ("Porter") and/or under 35 U.S.C. § 103(a) over Porter in view of Porter, U.S. Patent No. 5,648,098 ("the '098 patent") and further in view of Schutt, et al., U.S. Patent No. 5,626,833 ("Schutt").

Applicant respectfully disagrees with the Examiner regarding these rejections, and believes that the originally presented claims patentably define over the references cited. Without further addressing the merits of these rejections, however, Applicant respectfully submits that the rejections are rendered moot in light of the present amendment to Claim 63, the only pending independent claim. Specifically, as noted above, independent Claim 63 has been amended to recite that the application of ultrasonic energy in the methods of the present invention is performed via an intravascular or endoluminal catheter. None of Porter, Schutt or the '098 patent teaches or suggests the application of ultrasonic energy through an intravascular or endoluminal catheter as part of a method for lysing a thrombus, as recited in the amended claims. Rather, these references describe the use of conventional techniques for the application of ultrasound. Porter, for example, describes only *in vitro* ultrasound induced clot lysis, in which the ultrasound is presumably applied to the surface of the container in which the experiment is being conducted. The '098 patent also presents several examples of *in vitro* clot lysis, and additionally provides a single prophetic example that describes the conventional application of ultrasound with a well known, commercially available ultrasound imaging device. *See* Example 2, at col. 7. Schutt, which is directed exclusively to ultrasound imaging, also completely fails to teach or suggest the

use of an intravascular or endoluminal catheter for the administration of ultrasound, and describes only the use of conventional ultrasound imaging instruments.

Additionally, Applicant respectfully disagrees with the Examiner's statement on page 5 of the Office Action that Schutt teaches that the use of their perfluorocarbon containing compositions can enhance the thrombolytic activity of agents such as streptokinase. In this regard, Applicant notes that Schutt teaches that the compositions described therein can be used to enhance **visualization** of changes in myocardial tissue which may result from the use of thrombolytic agents. *See* col. 11, lines 25 to 29. Thus, it is submitted respectfully that, contrary to the assertion in the Office Action, Schutt fails completely to disclose or suggest methods or compositions for enhancing thrombolysis. Accordingly, Schutt cannot be said to teach methods or suggest the methods of the present invention.

From the forgoing discussion, it is clear that the cited references fail to teach or suggest the methods for lysing a thrombus defined by Applicant's amended claims. Accordingly, Applicant respectfully requests that the rejections under Sections 102 and 103 be reconsidered and withdrawn.


Miscellaneous

Applicant acknowledges the Examiner's comments regarding the references cited in the Information Disclosure Statement (IDS) that were apparently not available to in the applications referred to in the IDS. Applicants will provide copies of the references in a supplemental IDS.

CONCLUSION

Applicant believes that the foregoing constitutes a complete and full response to the Office Action of record. Applicant earnestly requests an early and favorable action.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "S. Maurice Valla", written in a cursive style.

**S. Maurice Valla
Registration Number 43,966**

Date: August 18, 2000

**WOODCOCK WASHBURN KURTZ
MACKIEWICZ & NORRIS
One Liberty Place - 46th Floor
Philadelphia, PA 19103
(215) 568-3100**